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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/592,751	06/13/2000	Nick Kalageros	60.130-709	5781

26096 7590 11/12/2002

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EXAMINER

CARPENTER, SCOTT A

ART UNIT PAPER NUMBER

3612

DATE MAILED: 11/12/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/592,751

Applicant(s)

KALAGEROS ET AL.

Examiner

Scott A. Carpenter

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-37 is/are pending in the application.
- 4a) Of the above claim(s) 5-9, 12, 13, 17-19 and 25-31 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 10, 11, 14-16, 20-24, and 32-37 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

1. Applicant's arguments (filed 9/25/02) with regard to the withdrawal of claim 6 as being drawn to a non-elected species have been considered but are not persuasive. The specification discloses that the embodiment having areas of rigid polymer and less rigid polymer is separate from the embodiment having a polymeric material having spaced areas of fiber reinforcement. Should applicant take the position that the two embodiments are obvious variants of each other, then the restriction requirement with regard to claim 6 will be withdrawn. Applicant is advised, however, that should one embodiment be found to be unpatentable, any such admission will be used as grounds for rejection of the other embodiment.
2. Claim 6 is still withdrawn from consideration as being drawn towards a non-elected invention, and the restriction requirement is still deemed proper. The restriction requirement is still FINAL.
3. Claims 1-37 are pending and claims 5-9, 12, 13, 17-19, and 25-31 have been withdrawn from consideration.
4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
5. Claims 1, 2, 32, and 33 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Amano et al. in U.S. Patent 5,165,627.

Regarding claim 1, Amano et al. (Amano hereafter) disclose a vehicle body panel (1a) comprising a sheet of material and spaced reinforcements on said sheet of material such that said

panel crumples in a predetermined manner. While Amano doesn't specifically recite crumpling of the panels, Amano specifically states that the panels are designed to be anisotropic - meaning that they are stronger in one direction than the other - and thus would crumple in a predetermined manner based on the direction of the impact force.

Regarding claim 2, Amano discloses that the invention can be made of fiber reinforced plastics.

Regarding claim 32, the panels of Amano could be broadly interpreted as being "generally planar."

Regarding claim 33, given a specific impact force, the panel of Amano could crumple in a "generally linear" path.

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 3, 4, 10, 11, 14-16, 20-24, and 34-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Spain et al. (U.S. Patent 5,707,697) in view of Amano and Vogt et al. (U.S. Patent 4,950,522).

Regarding claims 3, 14, and 20, Spain et al. discloses a generally planar polymeric vehicle body panel comprising a substrate and a colored layer of material but fails to disclose the use of spaced reinforcements or - in the alternative - a plurality of first and second sections alternating in a predetermined pattern wherein the second sections are less deformable than the first. Amano discloses the panel discussed above, but fails to teach a colored layer of material.

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Vogt discloses a generally planar composite body panel designed with weak sections such that the panel crumples in a predetermined manner. It would have been obvious to one of ordinary skill in the art to modify the panels taught by Spain to include the anisotropic taught by Amano based on the teaching of Vogt et al. to further improve upon the invention of Spain by creating a panel that was easy to produce (as taught by Spain) and crumpled in a predetermined manner (the benefits of which are taught by Vogt). Furthermore, Amano teaches that the anisotropic structure would also be beneficial in reducing the amount of noise transmitted into the passenger compartment.

Regarding claim 4, Amano discloses the use of spaced reinforcing fibers.

Regarding claims 10 and 11, Spain teaches the use of a paintless film, and as stated in the previous action and not timely traversed by applicant, the use of paintless film and pre-painted aluminum are common knowledge in the art, and therefore it would have been obvious to one of ordinary skill in the art to use either one of the materials as they are cheap and readily available.

Regarding claim 15, Amano discloses the use of reinforcing fibers.

Regarding claims 16 and 21, Amano discloses the use of reinforcing fibers in laterally spaced rows (see Fig. 10). Additionally, the term "molded together" carries little patentable weight, as it is directed to how the part is made, and not a structural feature of the part.

Regarding claim 22, Spain discloses the use of a paintless film, and Amano discloses the use of reinforced plastic (a polymeric material).

Regarding claim 23, Amano shows an arrangement with spaced fibers wherein the concentration is high where the fibers are, and low where the fibers are not.

Regarding claim 24, the panel of Amano has alternately arranged areas of high and low concentrations of fibers extending in laterally spaced rows.

Regarding claims 34 and 35, the gap between the fibers running horizontally (Amano - Fig. 10) comprise areas of lower fiber concentration, and the fibers themselves represent areas of high fiber concentration and alternate in a linear or generally planar direction at regular intervals.

8. Applicant's arguments filed 9/25/02 have been fully considered but they are not persuasive.

First, applicant argues that Amano is unrelated art and doesn't teach a vehicle body panel that crumples in a predetermined manner. In response, the Examiner would first like to point out that an airplane is, in fact, a vehicle. Also, a fuselage is part of the body of the airplane, and therefore a fuselage panel is, in fact, a vehicle body panel. Furthermore, because of the anisotropic nature, the panel would - in fact - crumple in a predetermined manner when subjected to an impact force. The Examiner would also like to point out that in general, any vehicle panel would crumple in a predetermined manner when subjected to a predetermined force.

Second, the corrugations of Amano can be broadly interpreted (see MPEP § 2111) as being reinforcing in nature. The corrugations in the walls of Amano increase the area moment of inertia and - if even to only a small extent - help resist buckling under a load in the axial direction.

Third, claim 2 makes no mention of spaced reinforcements. Claim 2, simply recites that the sheet is made from polymer - which Amano teaches.

The rejection of claims 1 and 2 under 35 U.S.C. 102(b) is proper and is maintained.

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With regard to applicant's arguments against the rejection of the remaining claims, these arguments are also not persuasive. Applicant states that Amano is "simply not relevant" to the instant application. The instant application teaches an anisotropic vehicle body panel. Amano teaches an anisotropic vehicle body (fuselage) panel. While the goals of Amano are more centered towards sound deadening, the end result is a panel having spaced reinforcements such that it is more easily deformable in one direction than the other. Additionally, the sound damping qualities could be of particular benefit in an automobile to reduce transmitted engine noise to make the cabin more quiet and comfortable.

Applicant points out that Amano is directed towards cylindrical components, and that Spain and Vogt teach planar body panels. Almost all vehicles have body panels which have some amount of curvature - this can be seen by standing on a sidewalk and watching cars go by. The radius of curvature of a fuselage on a large airplane (such as a Boeing 777 or 747 - which can be seen at almost any large airport) can be a lot less than the radius of curvature on the body panels of a small sports car such as a Mazda Miata or a Chevrolet Camaro. Even the vehicle depicted in Fig. 1 of the instant application has curved panels.

With regard to the second full paragraph of page 6 of the response (filed 9/4/02) by Applicant, the argument is unclear and apparently arbitrary. Applicant is advised to carefully review the rejection of claims 3, 14, and 20, which is based on a combination of references which teach all of the limitations of claims 3, 14, and 20.

With regard to the first and second paragraphs of page 7 of the response (filed 9/4/02), the rejection was based on a combination of Amano, Spain, and Vogt.

With regard to the following two paragraphs, the fibers running longitudinally comprise areas of higher and lower fiber concentrations. The gap between the fibers running horizontally comprise areas of lower fiber concentration, and the fibers themselves represent areas of high fiber concentration.

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREEMONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Scott A. Carpenter whose telephone number is 703-308-6290. The examiner can normally be reached on Mon. - Thurs. 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, D. Glenn Dayoan can be reached on 703-308-3102. The fax phone numbers for the organization where this application or proceeding is assigned are ~~703~~308-3297 for regular communications and 703-308-3297 for After Final communications.

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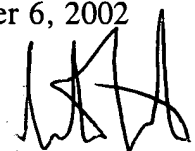
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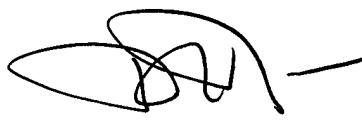
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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1113.

sac

November 6, 2002

 11/6/02
SCOTT
PATENT EXAMINER

 11/7/02
D. GLENN DAYOAN
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